June-04-12 1:28:08 PM

Revision ID:	D350-636-01			Accept	*N900	<b>040</b>	100	)* s	Setup Star	I ZI	S1*
Item Name:	Skidtube STD	w/ Training Wearplate	s, LH						Stop	' *N.	S2*
Start Date:	04/06/2012	Start Qty: 1.00	*1*		Cust Item I	D:					
Required Date:	18/06/2012	<b>Req'd Qty:</b> 1.00	*1*	:	Customer:				•		
Reference:			•		4						
Approvals:	Process Pla	n: MLJ	Date: 12/06	V Tooling:	Da	ite:	-	F	Run Star	* *N	R1*
••			l,	•		ite:			Stop	` *N	R2*
Sequence ID/ Work Center II	<b>)</b> ,	Operation Description		Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Rev	ision Nbr									
D3492	С									,	
D4168	Α									<i>:</i>	
IIN-D350-636	J	İ						_			
*100*		DOCUMENT CONTRO	DL	0.00				MA ?	A		*
*DC		Memo		0.00					<b>O</b>		
Document Control	•	Photocopy	blue file and type labels	per PPP D350-636-015 CHG	003						

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W/O:			WO	<b>RK ORDER CHANG</b>	ES				
DATE	STEP	PRO	OCEDURE CHAN	IGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
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Part No	:	PAR #:	Fault Categ	jory:	_ NCR: Yes	No DQ	A:	Date: _	·
		esolution:							
NCR:			WORK ORDE	R NON-CONFORMA	ANCE (NCF	<b>?</b> )			
·		Description of NC	Corrective Action Section		on B	Veritic:			Approval
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Sect	on C	Chief Eng	QC Inspector
-		1							
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	1								24.00

Item ID: Revision ID:	D350-636-0				Accept	*N90	<b>0040</b>	1100	)*	Setup	Start	*N:	S1*
Item Name: Start Date: Required Date: Reference:	04/06/2012	Start Qty: 1 Req'd Qty: 1	00	*1* *1*		Cust Iten Custome					Stop	*N:	S2*
Approvals:		nn:					Date:			Run	Start Stop	*N! *N!	R1*
Sequence ID/ Work Center II	<b>D</b>	Operation Description			Set Up/ Run Hours	Tool ID	Tool#	Plan Code	Accep Qty	t Rej Qty		Reject Number	Insp. Stamp
*110* Skidtubes Skidtubes		Skidtubes  Mem 1- Pic	k D2600-3 Bent	BE	0.00 12/06/28								
		4- Lo fitting 5- Dr per de 6- Dr Jig D 7- Cle ***Sl 8- Dr	cate DT8330 off of g, section H-H ill fwd step holes u wg D4168, detail a ll pilot holes as pe F8150 & DT8863a ccko DT8863B on ECOND SIDE*** ill most FWD wea en up holes of Deta ole per side) open	f blade fitting b sing DT9616. It A r Dwg D4168 s A for first side of second side of the rplate hole usin	bending marks. Scribe bending marks. Scribe bending marks. Scribe bending marks. Scribe bending DT8983. Open of tholes and drill pilot holes are DT9678 locating off of total of 2 holes per side) D section H-H to 0.500" and tholes are described by the section H-H to 0.500" and the secti	Drill using drill a side (detail B) for detail B.	12/06/2 B	. /	<b>)</b>	2f31/	હિ		
			eld D2744 Cap as bending as per QSI		8 and QSI 004.Fill groove	es in bend left	Se ab	6/24	)				

BR 2/06/28

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DATE	STEP	PROC	EDURE CH	IANGE	В	y	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
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Part No	:	PAR #:	_ Fault Ca	tegory:	NCR: \	es N	o <b>DQ</b>	<b>\:</b>	_ Date: _	
	R	esolution:	_ Disposit	ion:	_ QA: N/	C Clos	sed:	· ·	Date: _	
NCR:		W	ORK OR	DER NON-CONFORMA	NCE (N	ICR)				
DATE	STEP	Description of NC		Corrective Action Section			Verific	ation	Approval	Approval
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Item ID: Revision ID:	D350-636-01	15	·	Accept	*N900	040	1100	)* s	Setup Star	1 71	S1*
Item Name:	Skidtube STD	w/ Training Wearplates	, LH						Stop	, *N	S2*
Start Date: Required Date:	04/06/2012 : 18/06/2012	Start Qty: 1.00 Req'd Qty: 1.00	*1* *1*		Cust Item I Customer:	D:					
Reference:			•								
Approvals:	Process Pla	n:	Date:	Tooling:	D:	ate:		F	Run Star	1/1	R1*
	QC:		Date:	SPC (Y/N):	. Da	ate:			Stop	*N	R2*
Sequence ID/ Work Center II	<b>D</b>		inum Rod batch:		Tool ID	Tool#	Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120 *120* QC Quality Control		QC10- Inspect visual per  Memo	QS1004- ground weld	0.00 S.7	10-111			<b>.</b>	•••••••••••••••••••••••••••••••••••••••		-··:
130 *130* QC Quality Control		QC5- Inspect part compl	eteness to step on W/G	0.00	A [ [ ]						·

# Dart Aerospace Ltd W/O: WORK ORDER CHANGES DATE STEP PROCEDURE CHANGE By Date Qty Chief Eng / Prod Mgr

Part No:		PAR #:	Fault Category:	NCR: Yes No	DQA:	Date:
	Resolution:		Disposition:	QA: N/C Closed	d:	Date:

Approval QC Inspector

NCR:		WORK ORDER NON-CONFORMANCE (NCR)										
	T	Description of NC		Corrective Action Section B		Verification	Approval	Approval				
DATE	STEP	Section A	Initial Action Description Chief Eng Chief Eng		Sign & Date	Section C	Chief Eng	QC Inspector				
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June-04-12 1:28:08 PM

QC

Quality Control

Item ID: D350-636-015 Accept \*N900040100\* Setup Start **Revision ID: Item Name:** Skidtube STD w/ Training Wearplates, LH **Start Date:** 04/06/2012 Start Qty: 1.00 **Cust Item ID: Required Date:** 18/06/2012 Req'd Qty: 1.00 **Customer:** Reference: Run Approvals: **Process Plan:** Date: **Tooling:** Date: SPC (Y/N): QC: Date: Date: Sequence ID/ Operation Set Up/ Tool ID Tool# Reject Reject Plan Accept Insp. Work Center ID Description Qty Qty Number Stamp **Run Hours** Code Chemical Conversion Coat per QSI005 4.1 140 0.00 \*140\* HandFinish 0.00 Memo Hand Finishing QC3- Inspect Part Finish 150 0.00 \*150\*

0.00

Memo

W/O:			WORK ORDER CHANGES						
DATE	STEP	PR	ROCEDURE CHANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approva QC Inspector	
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ng dilas T									
Part No	):	PAR #:	Fault Category:	NCR: Yes	No DQ	A:	Date: _		

Part No:		PAR #:	Fault Category:	NCR: Yes No DQA:	Date:
	Resolution:		Disposition:	QA: N/C Closed:	Date:

NCR:			WORK ORD	ER NON-CONFORMANC	E (NCR)			
		Description of NC		Corrective Action Section B	Verification	Annuoval	Annuaval	
DATE	STEP	Section A	Initial Chief Eng			Section C	Approval Chief Eng	Approval QC Inspector
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Item ID: Revision ID: Item Name:	D350-636-01		s, LH	Accept	*N900	00401	<b>೧</b> ೧*	Setup Sta	14.7	11* 20*
Start Date: Required Date: Reference:	04/06/2012 18/06/2012	Start Qty: 1.00 Req'd Qty: 1.00	*1* *1*		Cust Item Customer:					,,,
Approvals:		n:	Date:	SPC (Y/N):	_	Pate:		Run Sta	"INH	?1* ?2*
Sequence ID/ Work Center II	<b>D</b>	Operation Description		Set Up/ Run Hours	Tool ID	Tool# Pl Co	an Accep ode Qty	Reject Qty	•	nsp. Stamp
*160* Skidtubes Skidtubes		(total of 8 ho as per dwg I 2-Open up h as per dwg I 3- Open floa Open wearp! 4-Chamfer h section AJ-A 5-Deburr and 6- Prepare tu 7-Bond web A/R Sika 8- Weld space & QS1004 (welding ins	poles per side) D4168.  noles of Detail B to 0.750 D4168.  at hole to 0.500" (4 per side) late holes to size as per depoles of Detail B, C, ground J per dwg D4168 (welding) d blow out all chips from the for welding, remove at D2739 in place as per Q offlex-291 batch: /2/	wg (4 holes per sides), section AL-AL nd handling section AL-AL nd instructions on sheet 8) inside of tube alodine as required.  SI 015  469  exp. date: 13-4-4-4 and D2743 as per dwg D416	on CG-CG and float holes	12/07/13	B	12/6	>7/13	

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W/O:			WORK ORDER CHANGES								
DATE	STEP	PRO	OCEDURE CHA	•	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector		
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Part No		PAR #:	Fault Cate	gory:	NCR: Yes	No DQ	A:	Date: _	· · · · · · · · · · · · · · · · · · ·		
	R	esolution:	Dispositio	n:	QA: N/C C	losed:		Date: _			
NCR:	et.	2.2	WORK ORD	ER NON-CONFORM	ANCE (NCI	₹)					
DATE	STEP	Description of NC Section A	Initial Chief Eng	Corrective Action Sec Action Description Chief Eng	ction B Sign			Approval Chief Eng	Approval QC Inspector		
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Quality Control

Item ID: D350-636-015 Accept \*N900040100\* Setup Start **Revision ID:** Skidtube STD w/ Training Wearplates, LH Item Name: **Start Date:** 04/06/2012 Start Qty: 1.00 **Cust Item ID: Required Date:** 18/06/2012 Req'd Qty: 1.00 **Customer:** Reference: Run Process Plan: Approvals: Date: **Tooling:** Date: Stop QC: SPC (Y/N): Date: Date: Sequence ID/ Operation Set Up/ **Tool ID** Reject Reject Tool# Plan Accept Insp. Work Center ID Description Run Hours Qty Qty Number Stamp Code 10-Grind welds flush as per Dwg D4168 11-Spot face ground handling holes section (total of 4 places per side) as per dwg D4168, section AL-AL 12- C'bore section CG-CG 13- Deburr holes HOLE IN TUBE \*\*\*\*\*\*\*\* 170 QC10- Inspect visual per QSI004- ground welds \*170\* QC

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W/O:			V	ORK ORDER CHANG	ES	•			,
DATE	STEP	PRO	CEDURE CH	IANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Appróval QC Inspector
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Part No	•	PAR #:	Fault Ca	tegory:	_ NCR: Yes	······································			
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DATE	STEP	Description of NC		Corrective Action Section		Verific	ation	Approval	Approval
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June-04-12 1:28:08 PM D350-636-015 Item ID: Accept \*N900040100\* Setup Start **Revision ID:** Item Name: Skidtube STD w/ Training Wearplates, LH Start Qty: 1.00 **Start Date:** 04/06/2012 **Cust Item ID: Required Date: 18/06/2012** Req'd Qty: 1.00 **Customer:** Reference: Run Date:\_\_\_\_\_ Approvals: Process Plan: **Tooling:** Date: SPC (Y/N): QC: Date: Date: Sequence ID/ Operation Set Up/ Tool ID Tool# Plan Accept Reject **Work Center ID** Description **Run Hours** Code Qty Qty 0.00 OAS 180 QC5- Inspect part completeness to step on W/O \*120\* Memo Quality Control 190 Pressure Wash per QSI005 4.3 0.00 \*100\* HandFinish 0.00 Memo Hand Finishing Re-alodine tube as per QSI 005 section 4.1.2.1 do not acid etch. 200 White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum 0.00 \*200\* Powdercoat START TIME: Powder Coating

OVEN TEMPERATURE:

FINISH TIME:

m18/8/1

M-X 12/07/26

Reject

Number

Insp.

Stamp

# **Dart Aerospace Ltd**

N/O:			WORK ORDER CHANGES											
DATE	STEP	PRO	OCEDURE CHA	ANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Appróval QC Inspector					
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Part No	:	PAR #:	Fault Cate	egory:	NCR: Yes	No DQ	A:	Date: _						
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NCR:			WORK ORE	ER NON-CONFORM	ANCE (NCR	)								
		Description of NC			tion B	Verifi	cation	Approval	Approval					
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date		ion C	Chief Eng	QC Inspector					
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Work Ord June-04-12 1:2	8:08 PM			*85146*				
Item ID: Revision ID:	D350-636-0	15	·	Accept	*N900040100*	Setup	Start	
Item Name:	Skidtube STD	w/ Training Wearplates	, LH				Stop	
Start Date:	04/06/2012	Start Qty: 1.00	*1*		Cust Item ID:			
Required Date:	18/06/2012	<b>Req'd Qty:</b> 1.00	*1*		Customer:			
Reference:			•					
Approvals:	Process Pla	n:	Date:	Tooling:	Date:	Run	Start	

QC: Date: SPC (Y/N): Date: Sequence ID/ Operation Tool ID Tool # Plan Reject Set Up/ Accept Reject Insp. **Work Center ID** Description **Run Hours** Code Qty Qty Number Stamp 210 QC3- Inspect Part Finish 0.00 1hH / Hl 12/07/30 \*210\* QC 0.00 Memo Quality Control Inspect for foreign object per QSI 024

220 0.00

HandFinish Memo 0.00

Hand Finishing — 1- Install inserts as per Dwg D4168

1RH & M. 107/30

Stop

Page 8

# **Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES												
DATE	STEP	PRO	CEDURE CHA	NGE	Ву	Date Qty	Approval Chief Eng / Prod Mgr	Appróval QC Inspector						
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	Res	solution:					Date: _							
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DATE	STEP	Description of NC	Initial	Corrective Action Section	on B Sign 8	Verification	Approval	Approval						
		Section A	Chief Eng	Action Description Chief Eng	Date	Section C	Chief Eng	QC Inspector						
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Quality Control

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June-04-12 1:28:08 PM Item ID: D350-636-015 Accept \*N900040100\* Setup Start **Revision ID:** Item Name: Skidtube STD w/ Training Wearplates, LH **Start Date:** 04/06/2012 Start Qty: 1.00 **Cust Item ID: Required Date:** 18/06/2012 Reg'd Oty: 1.00 **Customer:** Reference: Run Start Process Plan: **Approvals:** Date: Tooling: Date: Stop QC: SPC (Y/N): Date: Date: Sequence ID/ Operation Set Up/ **Tool ID** Tool# Reject Plan Accept Reject Insp. **Work Center ID** Description **Run Hours** Code Qty **Qty** Number Stamp 230 0.00 1ht & Il (2/07/3/ HandFinishing \*230\* HandFinish 0.00 Memo Hand Finishing 1-Inspect for Foreign Objects 2-Spray inside of tube with "LPS-3" batch:/\(\sigma\) \(\infty\) 3-Install blade fitting D3488-041, wearshoes and ground handling hardware as per dwg D4168 SIKA FLEX 241 BATCH: 111177140 EXP DATE: 14103 4-assemble o'ring to plug as per dwg D3492 and apply o'ring lube A/R 55-o'ring lube batch: ALLO 3-9 batch: 111459 6 5-Coat all exposed fasteners with "LPS Procyon" QC5- Inspect part completeness to step on W/O 240

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W/O:			W	ORK ORDER CHANGI	ES				,			
DATE	STEP	PRO	CEDURE CH	CEDURE CHANGE			Qty	Approval Chief Eng / Prod Mgr	Appróval QC Inspector			
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Part No	•	PAR #:	_ Fault Ca	tegory:	NCR: Yes No DQA: Date:							
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DATE	STEP	Description of NC			on B	Verific	cation	Approval	Approval			
	O.L.	Section A	Initial Chief Eng	Action Description Chief Eng	Sign Date		ion C	Chief Eng	QC Inspector			
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Location: PPP rev:

Identify and pack for shipping as per PPPD350-636-015

June-04-12 1:2	8:08 PM										
Item ID: Revision ID:	D350-636-0			Accept	*N90	0040	100	<b>)</b> *	Setup Star	1 /1	S1*
Item Name:	Skidtube STD	w/ Training Wearplates,	LH						Sto	<sup>p</sup> *N	S2*
Start Date: Required Date:	04/06/2012	Start Qty: 1.00 Req'd Qty: 1.00	*1*		Cust Ite						
Reference:	. 10/00/2012	<b>Req a Qiy.</b> 1.00	*1*		Custom	ier:					
Approvals:	Process Pla	n:	Date:	Tooling:		Date:		I	Run Sta	1/1	R1*
	<b>QC:</b>	·	Date:	SPC (Y/N):		Date:			Sto	*N	R2*
Sequence ID/ Work Center I	D	Operation Description		Set Up/ Run Hours	Tool I	D Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
250		Pick Kit		0.00							
*250*											
Packaging		Memo		0.00						~	
Packaging		If making a E pick kit will o 1 X AN3C37 1 X AN3C34 1 X AN3C42 2 X D3493-1	only requires: A A								19-8-,
260		QC4- 100% Inspect kits for	or completeness	0.00	1						
*260*				<b>A A</b> .	1 / -						
QC		Memo		0.00	15/08/09						
Quality Control		*****ensure	e antiseize is on AN8C21	A bolts******* 9_83	, ,						
270				0.00							11 6
*270*		Packaging								12	Shost
Packaging		Memo		0.00							Jun 1



Packaging

# **Dart Aerospace Ltd**

W/O:		<del></del>	WORK ORDER CHANGES												
DATE	STEP	PRO	CEDURE CH	ANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Appróval QC Inspector						
Part No	•	PAR #:	Fault Ca	tegory:	NCR: Ye	s No D	QA:	_ Date: _							
	R	esolution:	Disposit	ion:	QA: N/C	Closed: _		Date: _							
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DATE	STEP	Description of NC	1121-4		tion B		ification	Approval	Approval						
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NOTE: Date & initial all entries

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June-04-12 1:28:08 PM

Item ID:	D350-636-01	15		Accept	*N900	040	100	)*	Setup	Start	*N1	<b>C1</b> *
Revision ID:					14.5/1/()	\		,	_		1/1	. J
Item Name:	Skidtube STD	w/ Training Wearplate	s, LH							Stop	*N	S2*
Start Date:	04/06/2012	Start Qty: 1.00	*1*		Cust Item	D:						
Required Date	: 18/06/2012	Req'd Qty: 1.00	*1*		Customer:							
Reference:			•									
Approvals:	Process Pla	n:	Date:	Tooling:	D	ate:			Run	Start	*N	R1*
	QC:		Date:	<b>SPC (Y/N):</b>	<b>D</b>	ate:				Stop	*N	R2*
Sequence ID/ Work Center I	D	Operation Description	· <del></del> -· · · · · · · · · · · · · · · · · ·	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accep Qty	t Re	•	Reject Number	Insp. Stamp
280		QC21- Final Inspection	- Work Order Release	0.00						1	`	$1 \wedge 1$
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#### **Picklist Print**

June-04-12 1:28:12 PM

Work Order ID: 85146

\*85146\*

Parent Item:

D350-636-015

\*D350-636-015\*

Parent Item Name: Skidtube STD w/ Training Wearplates, LH

**Start Date:** 04/06/2012

Required Date: 18/06/2012 ·

Start Qty: 1.00

Required Qty: 1.00

**Comments:** 

IPP rev:A 10.09.28 new issue DD verf:EC

IPP Rev:B

11.04.14 ecn11-553 DD verf:EC

IPP Rev:C 11.10.18 as per

NCR 11-906 DD verf:EC

IPP Rev:D 112.04.16 AS PER ECN 12-

542 DD verf:EC

Component Item ID/ Item Name	Replacement Item ID		Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
AN3C34A		Purchased	 No			230	Each	41.0000	1			1/	
*AN3C34A	Δ*								**	sil	loi	8/8	
				Location		Loc	<u>Qty</u>	Loc Code				1	01
				ST353			41				_		
					116075		21		7				
					117514		20				_		
AN3C36A		Purchased	No			230	Each	162.0000	4	4			

\*AN3C36A\*

Purchased

Location	Loc Qty	Loc Code	
FG	4		
101261	4		
ST353	158		
116590	0		
119083	2		
119324	23		
121388	33		
121389	50		
121689	50		

**BOLT** 

Page 1

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		W	ORK ORDER CHANG	iES				•	
STEP	PRO	CEDURE CH	ANGE	B	/	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC inspector
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·	PAR #:	Fault Car	tegory:	_ NCR: Y	′es N	o DQA	\:	Date:	
Re	esolution:	_ Disposit	ion:	_ QA: N/	C Clos	sed:		Date:	
	W	ORK OR	DER NON-CONFORM	ANCE (N	ICR)			,,	
STEP	Description of NC				0			Approval	Approval
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		:PAR #:	STEP PROCEDURE CH	STEP PROCEDURE CHANGE  PAR #: Fault Category:  Resolution: Disposition:  WORK ORDER NON-CONFORM  STEP Description of NC Section A Corrective Action Section A Corrective Action Description	PAR #: Fault Category: NCR: Y  Resolution: Disposition: QA: N/A  WORK ORDER NON-CONFORMANCE (NOTED TO BESET OF CONTINUE CONTINU	STEP PROCEDURE CHANGE By  PROCEDURE CHANGE By  PAR #: Fault Category: NCR: Yes N  Resolution: Disposition: QA: N/C Clos  WORK ORDER NON-CONFORMANCE (NCR)  STEP Description of NC	STEP PROCEDURE CHANGE By Date  :PAR #:Fault Category:NCR: Yes No DQA  Resolution:Disposition:QA: N/C Closed:  WORK ORDER NON-CONFORMANCE (NCR)  STEP Description of NC	STEP PROCEDURE CHANGE By Date Qty	STEP PROCEDURE CHANGE By Date Qty Chief Eng / Prod Mgr  : PAR #: Fault Category: NCR: Yes No DQA: Date: Resolution: Disposition: QA: N/C Closed: Date: WORK ORDER NON-CONFORMANCE (NCR)  STEP Description of NC Section A Chief Eng Chief E

June-04-12 1:28:12 PM	,									Page 2
Work Order ID: 85146		*851	46*	· =						
Parent Item: D350-6.  Parent Item Name: Skid	36-015 dtube STD w/ Training Wearplates	*D35	0-636-0	)15*			art Date:	04/06/2012 1.00	Required Date: Required Qty:	
*AN3C37A *BOLT	Purchased *	No		230	Each	141.0000	1 <b>**</b>	M12/5	5845J 8	<b>P</b> ·
O		<u>Loc</u> ST3	116874 117010 120422 121068 121585	<u>Lo</u> u	141 111 2 3 75 50	Loc Code				
*AN3C42A *AN3C42A BOLT	Purchased ★	No	ation	230	Each	32.0000 Loc Code	\ <b>*</b> *	1	sf se	
D3492-1	Manufactured	ST3		230	32 1 6 25 Each	257.0000	8			
*D3492-1*							**	M	12/07/3	o
		<u>Loc</u> FP0 FP	69531 74444 76235 <u>83259</u>	<u>Loa</u>	242 8 2 4 228 15	Loc Code			· · · · · ·	

#### **Dart Aerospace Ltd**

W/O:			WC	RK ORDER CHANGE	ES	···			
DATE	STEP	PRO	OCEDURE CHAI	NGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Appròval QC Inspector
						· · · ·			
Part No		PAR #:	Fault Cate	gory:	NCR: Yes	No DQ	A:	Date: _	
		esolution:							
NCR:			WORK ORDI	ER NON-CONFORMA	NCE (NCF	3)			
DATE	OTED	Description of NC	<del></del>	Corrective Action Section		Verific	cation	Approval	Approval
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Secti		Chief Eng	QC Inspector
		·							
						<u></u>			

June-04-12 1:28:12 PM

Work Order ID: 85146

\*85146\*

No

No

Parent Item:

D350-636-015

\*D350-636-015\*

Parent Item Name: Skidtube STD w/ Training Wearplates, LH

**Start Date:** 04/06/2012

**Required Date:** 18/06/2012

Start Qty: 1.00

\*\*

Required Qty: 1.00

D3492-3

Manufactured

Manufactured

Manufactured

230

230

Each

167.0000

462.0000

Al W07/30

\*D3492-3\*

Plug

Location Loc Qty Loc Code FP-A 167 B85161 81967 5 83099 40 83529 122

Each

D3873-1

\*D3873-1\*

Bushing

\*\*

Jel 12/07/30

<b>Location</b>	<u>Loc</u>	<u>Oty</u>	Loc Code		
ST057		6			
79561		6			
ST067		456			
64760		1			
68247		4			
73829		19			
73830		2			
<u>76791</u>		410			у ¬
79560		20			
	230	Each	0.0000	1	1

D4154-041

\*D4154-041\*

Wearplate Assembly

1383693 (x1) JU 6/0=(30

# **Dart Aerospace Ltd**

W/O:		<u> </u>	W	ORK ORDER CHANG	ES				*
DATE	STEP	PRO	CEDURE CH	ANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Appróval QC Inspector
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Part No		PAR #:							·
	R	esolution:						Date: _	
NCR:		W	ORK OR	DER NON-CONFORMA	NCE (NC	R)			
DATE	STEP	Description of NC Section A	<b>Initial</b> Chief Eng	Corrective Action Section Action Description Chief Eng	on B Sign Dat	& Sec	ication tion C	Approval Chief Eng	Approval QC Inspector
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June-04-12 1:28:12 PM

Work Order ID: 85146

\*85146\*

Parent Item:

D350-636-015

\*D350-636-015\*

Parent Item Name: Skidtube STD w/ Training Wearplates, LH

Start Date: 04/06/2012

**Required Date: 18/06/2012** 

8812/07/19

Start Qty: 1.00

Required Qty: 1.00

D4170-1

Manufactured

230

Each

95.0000 \*\*

\*D4170-1\*

Bushing

Location Loc Qty Loc Code LG 82222 50 LG001 45 71844 5 82043 40

D4171-1

Manufactured

No

Purchased

230 Each 22.0000 \*\*

HL 12/07/30

\*D4171-1\* Bushing

MS21043-3

Location Loc Qty Loc Code ST104 22 2 77008 82385 20 230 Each 1,557.000

\*\*

12/07/30

Locatio	<u>on</u>	Loc Qty	Loc Code	
FG		72		
	103691	72		
GA		14		
	120693	14		
ST301		1471		
	118077	2		
	118614	51		
	118686	30		
	119758	20		
	121255	368		
	121708	1000		Y 4

Dart Aerospace L	_td
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W/O:		WORK ORDER CHANGES											
DATE	STEP	PROC	Approval Chief Eng / Prod Mgr	Approval QC Inspector									
Part No	:	PAR #:	Fault Cat	degory:	NCR: Yes	No DQA:	Date:						
Resolution:		_ Dispositi	ion:	QA: N/C Closed: Date:									
NCR:		W	ORK ORI	DER NON-CONFORMA	NCE (NCR	)							
		Description of NC		Corrective Action Section		Verification	Approval	Approval					
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Section C	Chief Eng	QC Inspector					
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June-04-12 1:28:13 PM

Work Order ID: 85146

\*85146\*

Parent Item:

D350-636-015

\*D350-636-015\*

114742

Parent Item Name: Skidtube STD w/ Training Wearplates, LH

**Start Date:** 04/06/2012

**Required Date: 18/06/2012** 

Start Qty: 1.00

Required Qty: 1.00

NAS1149C0363R

Purchased

No

230

Each 2,958.000

\*NAS1149C0363R\*

Location ST297

Loc Qty 2958 2958 Loc Code

NAS1515H3L

Purchased

No

230 Each

146.0000

\*NAS1515H3I \* WASHER

<b>Location</b>		Loc Qty
FG		40
1	02472	40
ST277		106
1	18686	
1	19438	
1	20360	1
1	21243	2
1	21556	89

Loc Code 171122151

NAS1611-010

Purchased

No

230 Each

188.0000

\*\*

\*NAS1611-010\* O-RING

Location	Loc Qty	Loc Code
FP001	188	
110915	14	
117460	8	
118077	1	1
118612	3	M122151
119438	47	, ,
121259	2	
121415	4	
121584	59	

50

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**Shop Packet Print** 

121723

Page 5

Dart Aerospace Lte	d
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W/O:			W	ORK ORDER CHANGI	ES				a
DATE	STEP	PROC	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC inspector		
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Doub No.	<u> </u>								
		PAR #:							
	R	esolution:						Date: _ 	
NCR:	_	W	ORK OR	DER NON-CONFORMA	NCE (NC	R)			
DATE	STEP	Description of NC	1-141-1	Corrective Action Section	on B Sign		cation	Approval Chief Eng	Approval
		Section A	Initial Chief Eng	Action Description Chief Eng	Date		ion C		QC Inspector
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Picklist Print June-04-12 1:28:13 PM									Page 6
Work Order ID: 85146  Parent Item: D350-636-015  Parent Item Name: Skidtube STD w/	Training Wearplates,	*D	5146* 350-636-0	)15*			art Date:	: 04/06/20	Required Date: 18/06/2012  Required Qty: 1.00
NAS1611-013 *NAS1611-013* O-RING	Purchased	No		230	Each	361.0000	8 **	8 H)	
NAS1149D0863J *NAS1149D0863	Purchased	No	Location FP001 116582 117291 117887 119623 121584 121825 121826	<u>Lo</u> 250	361 5 2 53 36 15 200 50 Each	<u>Loc Code</u> 251.0000	2 **		8 11 1107130
WASHER			Location ST298 118078 119307 120308 121556		251 34 17 100	Loc Code			/2
*D2744* Cap	Manufactured	No		110	Each	35.0000	1 <b>**</b>		BE 12/54/28
			<u>Location</u> LG002	<u>Lo</u>	<u>c Qty</u> 35	Loc Code			

62715 1 78900 3 83412 31

	•									
W/O:			WC	ORK ORDER CHANG	ES				3	
DATE	STEP	PROCEDURE CHANGE			Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	
Part No	Part No: PAR #:		Fault Cate			NCR: Yes No DQA: Date				
	Res	olution:						Date: _		
NCR:		,	WORK ORD	ER NON-CONFORMA	ANCE (NC	R)				
DATE	STEP	Description of NC	In this is	Corrective Action Section B			Verification		Approval	
		Section A	Initial Chief Eng	Action Description Chief Eng	Sign Dat		Section C	Chief Eng	QC Inspector	
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				19A7 (1911)			W			
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Work Order ID: 85146

\*85146\*

Parent Item:

D350-636-015

\*D350-636-015\*

Parent Item Name: Skidtube STD w/ Training Wearplates, LH

Start Date: 04/06/2012

**Required Date: 18/06/2012** 

Start Qty: 1.00

\*\*

Required Qty: 1.00

D2600-3-BENT

Manufactured No 110

160

Each

29.0000

Extrusion Bent

Location Loc Qty Loc Code LG 29 66875 73253 75021 75022 75023 81330 83305 83442 13

Each

D2743

Manufactured No

\*\*

296.0000

Crossbolt Spacer

Location	Loc Oty	Loc Code	
LG	222		
81965	55		
83262	167		
LG001	74		
67766	4		
68251	3		
73403	64		
74445	1		
79517	2		

#### **Dart Aerospace Ltd**

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W/O:		· · · · · · · · · · · · · · · · · · ·	W	ORK ORDER CHANG	ES				•
DATE	STEP	PRO	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector		
						, 			
Part No	:	PAR #:	Fault Cate	egory:	_ NCR: Yes	No DQA	\:	_ Date: _	
Resolution:			Disposition	_ Disposition: QA: N/C Closed:					
NCR:			WORK ORD	ER NON-CONFORMA	ANCE (NCF	R)		,	
DATE	STEP	Description of NC		ion B	Verifica	ation	Approval	Approval	
DAIL	Section A	Section A	Initial Chief Eng	Action Description Chief Eng	Sign 8 Date	Section	n C	Chief Eng	QC Inspector
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Work Order ID: 85146

\*85146\*

Parent Item:

D2739

D350-636-015

\*D350-636-015\*

Parent Item Name: Skidtube STD w/ Training Wearplates, LH

**Start Date:** 04/06/2012

**Required Date: 18/06/2012** 

Start Qty: 1.00

Required Qty: 1.00

\*D2739\*

No Manufactured

160

Loc Qty

13

5

2

Each

Each

2

2

2

3

34

13.0000 Each

350 I Beam

Location B85487 LG 72155 81508 83447 83448 83548 160

Loc Code

46.0000

Loc Code

D3490-3

Manufactured No

\*\*

Cross Bolt Spacer

Location Loc Qty LG001 46 83313 46

160

45.0000

D3490-1

Manufactured No

\*\*

Cross Bolt Spacer

Loc Qty Location LG 81976 LG001 43 62450 74875

77042

83269

Loc Code

Dart Aerospace	Ltd
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W/O:			V	VORK ORDER CHANGE	S			,	•
DATE	STEP	PROC	CEDURE CH	IANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC inspector
								<b>3</b>	·
Part No	•	PAR #:	_ Fault Ca	tegory:	NCR: Yes	No DQA	\:	Date:	
	Resolution: Disposition: QA			QA: N/C Clo	osed:		Date: _		
NCR:		W	ORK OR	DER NON-CONFORMA	NCE (NCR	)			
DATE	STEP	Description of NC Section A	Initial Chief Eng	Corrective Action Section Action Description Chief Eng	Sign &	Verific Section		Approval Chief Eng	Approval QC inspector
			Office Ling	Office Eng	20.0				
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Blade Fitting Assembly, LH

Location Loc Qty Loc Code FP002 61689 82271 B45807

## **Dart Aerospace Ltd**

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W/O:			W	ORK ORDER CHANG	GES			,	<b>&gt;</b>
DATE	STEP	PROCEDURE CHANGE By Date			Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	
		•							
Part No: PAR #:			Fault Cate	gory:	NCR: Ye	s No [	)QA:	Date: _	
	R	esolution:	Disposition	n:	QA: N/C Closed: Date:				
NCR:		•	WORK ORD	ER NON-CONFORM	ANCE (NO	CR)			
DATE STEP		Description of NC			tion B	Vei	rification	Approval	Approval
DAIL	JILF	Section A	Initial Chief Eng	Action Description Chief Eng	Sig Da		ection C	Chief Eng	QC Inspector
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Work Order ID: 85146

\*85146\*

Parent Item:

D350-636-015

\*D350-636-015\*

Parent Item Name: Skidtube STD w/ Training Wearplates, LH

**Start Date:** 04/06/2012

**Required Date:** 18/06/2012

Start Qty: 1.00

Required Qty: 1.00

AN6C44A

Purchased

No

230

Each

86.0000

n10=130

\*AN6C44A\*

<b>Location</b>		Loc Qty	Loc Code		
FG		2	w 1222 a. l		
1039	64	2	471222041		<u> </u>
ST343		84			
1210	13	11			
1211	67	13			
1214	40	50			
1216	89	10			
	230	Each	81.0000	1	1

MS21083C8

Purchased

No

\*MS21083C8\*

<b>Location</b>	Loc Qty	Loc Code	
304	75		
121185	29		
121349	46		
FP002	I		,
115884	l		
ST303	4		
115884	0		
118077	1		
119309	2		
119638	1		
ST304	1		
121524	1		

Dart Aerospace Ltd
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W/O:			M	ORK ORDER	CHANGES				•	•
DATE	STEP	PRO	CEDURE CH	<del></del>		Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC inspector
		<del>16</del>							Prod Wigi	
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Part No		PAR #:	Fault Ca	tegory:	NC	R: Yes	No <b>DQ</b>	A:	Date: _	
	R	esolution:	_ Disposit	ion:	Q <i>A</i>	A: N/C CI	osed:		Date:	
NCR:		V	VORK OR	DER NON-COM	IFORMANC	E (NCR	(1)			
DATE	STEP	Description of NC		Corrective Action		Cian 9		cation	Approval	Approval
	O.L.	Section A	Initial Chief Eng	Action Des	scription Eng	Sign & Date	Sect	ion C	Chief Eng	QC Inspector
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June-04-12 1:28:13 PM

Work Order ID: 85146

\*85146\*

Parent Item:

D350-636-015

\*D350-636-015\*

Parent Item Name: Skidtube STD w/ Training Wearplates, LH

**Start Date:** 04/06/2012

**Required Date: 18/06/2012** 

Start Qty: 1.00

Required Qty: 1.00

D3631-1

Manufactured

230

Each

347.0000

\*\*

<b>Location</b>	<u>Lo</u>	c Oty	Loc Code		
FG		332			
81874		2			
83588		330			
ST072		15			X
68062		2			
75548		13			
	230	Each	0.0000	4	4

AN960C10L

NAS1149C0332 Purchased No

11172063

\*AN960C101 \* 🗸

washer

D2745

No Manufactured

230

Each

122.0000

\*\*

**V**(

\*D2745\*

Location	Loc	<u>Qty</u>	Loc Code		
FP		6			
79518		6			
FP001		116	B & 54 46		
69529		1	•		
76142		1			
83260		114			
	230	Fach	257 0000	1	1

NAS1149C0832R

Purchased

No

12/02/30

\*NAS1149C0832R\*

WASHER

Location	Loc Qty	Loc Code	
ST297	257		
114915	257		

## **Dart Aerospace Ltd**

W/O:			W	ORK ORDER CHANGI	ES				
DATE	STEP	PROC	CEDURE CH	ANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
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							,		
Part No	:	PAR #:	_ Fault Ca	tegory:	NCR: Yes	No DQ	A:	_ Date: _	
	Resolution: Disposition:			QA: N/C Closed: Date:					
NCR:		W	ORK OR	DER NON-CONFORMA	NCE (NC	R)			
DATE	STEP	Description of NC Section A	Initial Chief Eng	Corrective Action Section Action Description Chief Eng	on B Sign Date	& Sect	<b>cation</b> tion C	Approval Chief Eng	Approval QC Inspector
<u> </u>			Office Ling	Office Ling	Date				
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June-04-12 1:28:13 PM

Work Order ID: 85146

\*85146\*

Parent Item:

D350-636-015

\*D350-636-015\*

Parent Item Name: Skidtube STD w/ Training Wearplates, LH

**Start Date:** 04/06/2012

**Required Date:** 18/06/2012

Start Qty: 1.00

Required Qty: 1.00

AN3C6A

\*AN3C6A\*

Purchased No

Purchased

230

Each

451.0000

Loc Code

Location Loc Qty FP001 111982 ST351 450 111982 2 116419 23

116549 2 116704 12 117619 117688

117872

118422

119449

120423

120693 121682

5 13

230

21 3 158 200

Loc Qty

20

Each

618.0000

\*\*

90 1107/30

\*MS21043-6\*

MS21043-6

FG ST301

Location

No

103693 20 598 117887 2 118384 96 120308 500

Loc Code

## **Dart Aerospace Ltd**

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N/O:			V	ORK ORDER CHANGE	S			,	
DATE	STÉP	PRO	CEDURE CHANGE			Date Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	
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Part No		PAR #:							
	R	esolution:				<u> </u>	Date: _ 		
NCR:		V	VORK OR	DER NON-CONFORMA	NCE (NCR	)			
DATE STEP		Description of NC	4	Corrective Action Section	n B   Sign &	Verification	Approval	Approval	
		Section A	Initial Chief Eng	Action Description Chief Eng	Date	Section C	Chief Eng	QC Inspector	
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<u>.</u>									
		-							

June-04-12 1:28:13 PM

Work Order ID: 85146

\*85146\*

ST304

No

Parent Item:

D350-636-015

\*D350-636-015\*

Parent Item Name: Skidtube STD w/ Training Wearplates, LH

**Start Date:** 04/06/2012

**Required Date:** 18/06/2012

Start Qty: 1.00

Required Qty: 1.00

D3493-1

\*D3493-1\*

Manufactured

250

127.0000 Each

\*\*

Washer

Location	<u>I</u>	oc Qty	Loc Code
ST050		127	
77573		1	
82023			
83097		100	
	250	Each	81.0000

MS21083C8

Purchased

Purchased

No

\*\*

\*MS21083C8\* NUT

Location	Loc Oty	Loc Code
304	75	
121185	29	
121349	46	
FP002	1	
115884	1	
ST303	4	
115884	0	
118077	1	
119309	2	
119638	1	

121524

Each

\*\*

57.0000

AN8C21A

\*AN8C21A\*

BOLT

Location	Loc Qty	Loc Code
ST343	57	
118758	3	
121167	4	
121275	50	

250

Dart Aerospace L
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W/O:			W	ORK ORDER CHANG	ES	<del></del>		,		
DATE	STEP	PRO	CEDURE CH	ANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	
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	•									
Part No	•	PAR #:	Fault Ca	Fault Category: NCR: Yes No			o DQA: Date:			
	R		Disposition: QA: N/C Closed: Date:							
NCR:		V	VORK OR	DER NON-CONFORMA	NCE (NCR	1)				
DATE	STEP	Description of NC	Corrective Action Section			Verific		Approval	Approval	
	O I L	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Section	on C	Chief Eng	QC Inspector	
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## **Picklist Print**

June-04-12 1:28:13 PM

Work Order ID: 85146

\*85146\*

Parent Item:

D350-636-015

\*D350-636-015\*

Parent Item Name: Skidtube STD w/ Training Wearplates, LH

Start Date: 04/06/2012

**Required Date: 18/06/2012** 

Page 14

Start Qty: 1.00

Required Qty: 1.00

D2741

Manufactured No 250

Each

20.0000

Blade, 350 Skidtube

<u>Location</u>	Loc Oty
ST	-10
ST466	30
71856	1
79516	19

Loc Code B83135

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W/O:			W	ORK ORDER CHANG	ES				•	
DATE	STEP	PROCEDURE CHANGE				Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	
Part No	:	PAR #:	Fault Cat	egory:	_ NCR: Yes	No DQ	A:	_ Date: _		
Resolution: Disposition:					QA: N/C Closed: Date:					
NCR:			WORK ORI	DER NON-CONFORMA	ANCE (NC	R)				
DATE	CTED	Description of NC	Corrective Action Section B			Verifica		Approval	Approval	
DATE STEP		Section A	Initial Chief Eng	Action Description Chief Eng	Sign Date	&   Sect	Section C	Chief Eng	QC Inspector	
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l	QTY -041	QTY -042	QTY -043	QTY -044	PART NUMBER	DESCRIPTION
	X				D4168-041	350 SKIDTUBE ASSEMBLY, LH
- [		Х			D4168-042	350 SKIDTUBE ASSEMBLY, RH
ſ			Х		D4168-043	350 SKIDTUBE ASSEMBLY, LH
- [				X	D4168-044	350 SKIDTUBE ASSEMBLY, RH
Ī						ind side obe necessary in
[	1	_1	1 1 1		D2739	WEB
	8 8		8	8	D2743	SPACER
[	1			1	D2744	CAP
ſ	8	8	8	8	D2745	BUSHING
ľ	1		1		D3488-041	BLADE FITTING, LH
Γ		1		1	D3488-042	BLADE FITTING, RH
[	4	4	4	4	D3490-1	SPACER
	4	4			D3490-3	SPACER
			4	4	D3490-5	SPACER
L	8	8	8	8	D3492-041	PLUG ASSEMBLY
-[	8	8			D3492-043	PLUG ASSEMBLY
Ł			8	8	D3492-045	PLUG ASSEMBLY
L	8	8	8	8	D3631-1	WASHER
	7	7	7	7	D3873-1	BUSHING
	1	1	1	1	D4154-041	WEARPLATE ASSEMBLY
L	1				D4168-1	SKIDTUBE WELDMENT, LH
L		_1_			D4168-2	SKIDTUBE WELDMENT, RH
L			_1_	_	D4168-3	SKIDTUBE WELDMENT, LH
L	i			1	D4168-4	SKIDTUBE WELDMENT, RH
L	4	4	4	4	D4170-1	SPACER
L	1	1	1	1	D4171-1	BUSHING
L						
L	4	4	4	4	ALS4-1032-225	INSERT
L	4	4	4	_4_	AN3C6A	BOLT
1	1	_1_	_1_	1	AN3C34A	BOLT
L	4	4	4	4	AN3C36A	BOLT
L	4	4	4	4	AN6C44A	BOLT
L	1	1	1	1	AN8C35A	BOLT
1	9	9	9	9	AN960C10	WASHER (OR NAS1149CO363R)
Ŀ	-4	4	_ 4	4	AN960C10L	WASHER (OR NAS1149CO332R)
L	1	1	1		AN960C816L	WASHER (OR NAS1149CO832R)
L	5	5	5		MS21043-3	NUT
L	4	4	4		MS21043-6	NUT
L	1	1	_1		MS21083C8	NUT
L	4	_4	4	4	NAS1515H3L	WASHER

SHOP COPY RETURN TO **ENGINEERING UNCONTROLLED COPY** SUBJECT TO AMENDMENT WITHOUT NOTICE WORK ORDER NLJ NO. 85146 NLJ

**GENERAL NOTES:** 

MATERIAL: MAKE D4168-1/-2/-3/-4 FROM D2600-3 EXTRUSION (INITIAL LENGTH = 120.0).
FINISH:
CHEMICAL CONVERSION COAT PER DART QSI 005 4.1 PRIOR TO INSTALLING D2739 WEB.
POWDER COAT WHITE (REF. 4.3.5.1) PER DART QSI 005 4.3
BLACK ANTI-SKID PAINT AS INDICATED TO 1.0 ABOVE SKIDTUBE CENTER-LINE PER DART 005 4.4 (OPTIONAL).
TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
UNITS: INCHES UNLESS OTHERWISE NOTED
BREAK SHARP EDGES: N/A
IDENTIFICATION: N/A
WEIGHT: D4168-041/-042/-043/-044 = 32.3 LBS
WELD PER DART QSI 004
FINAL CONFIGURATION SHOULD HAVE THE FOLLOWING MINIMUM MECHANICAL PROPERTIES:
MINIMUM YIELD TENSILE STRENGTH = 35 KSI
MINIMUM YIELD TENSILE STRENGTH = 36 KSI
COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF POWDER COATING WITH MEN DEGREASER.
SPACER AND PLUG INSTALLED SAME AS SECTION AP-AP EXCEPT HORIZONTAL

A	NEW IS	SUE		SC	10.08.09				
REV.			DESCRIPTION	BY	DATE				
DESIGN SC			DART AEROS	DART AEROSPACE USA, INC.					
DRAWN SC				PORT HADLOCK, WA					
CHECK	ŒD	4	DRAWING NO.		REV. A				
MFG. APPR.		1	□ D4168		SHEET 1 OF 11				
APPRO	VED	WA	TITLE		ŞCALE				
DE APP	PR.	#-	350 SKIDTUBE	<b>ASSEMBL</b>	Y NTS				
DATE	10.0	8.09	THIS DOCUMENT IS PROVATE AND COMPIDENTS NOT TO BE USED FOR ANY PURPOSE OR COP	COPYRIGHT © 2010 BY DART AEROSPACE USA, INC.  THE DOCAMON IS PREVAIT WIS DOMEDIATIN, AND IS SUPPLIED ON THE EXPRESS CONCINUM THAT IT IS  HOT TO BE USED FOR ANY PURPOSES ON COPED OR COMMANDATION TO ANY OTHER PROCESS WITHOUT  WINTTHY PROJECTION FROM LORST AGROSPACE USA, MC.					

Dart Aerospace	Ltd:
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	R	esolution:						Date:	
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O Delever o Dele

D4168-041 350 SKIDTUBE ASSEMBLY, LH

D4168-042 350 SKIDTUBE ASSEMBLY, RH

RELEASE 2010 -09- 15

DESIGN	SC	DART AEROSPACE USA.	INC.
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Dart Aerospace Ltd
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D4168-043 350 SKIDTUBE ASSEMBLY, LH

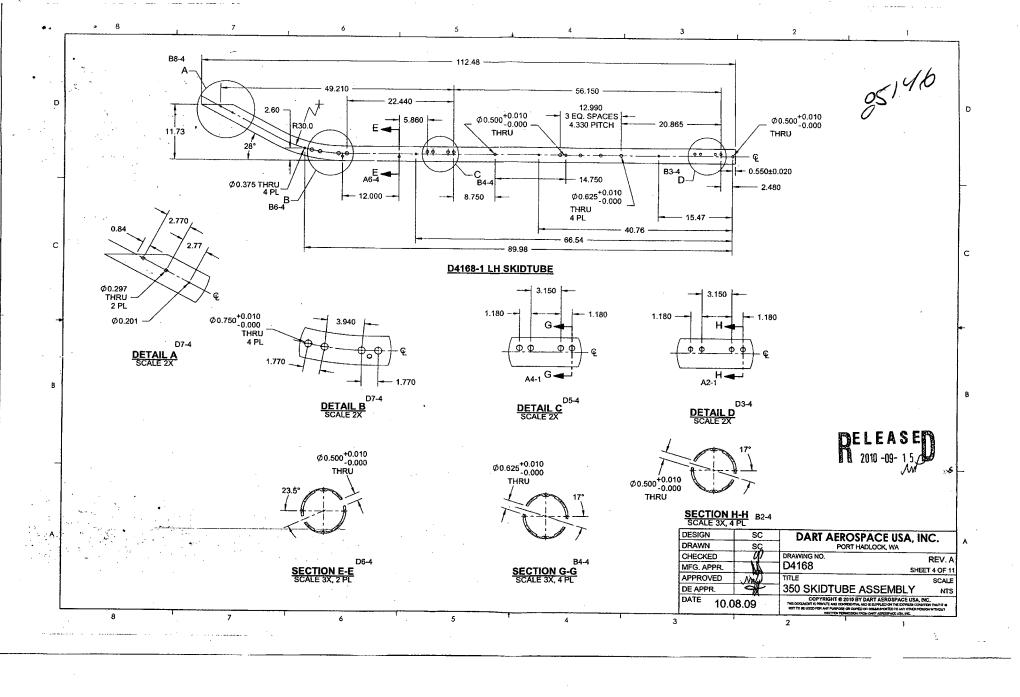
D4168-044 350 SKIDTUBE ASSEMBLY, RH

RELEASED 2010 -09- 1.5

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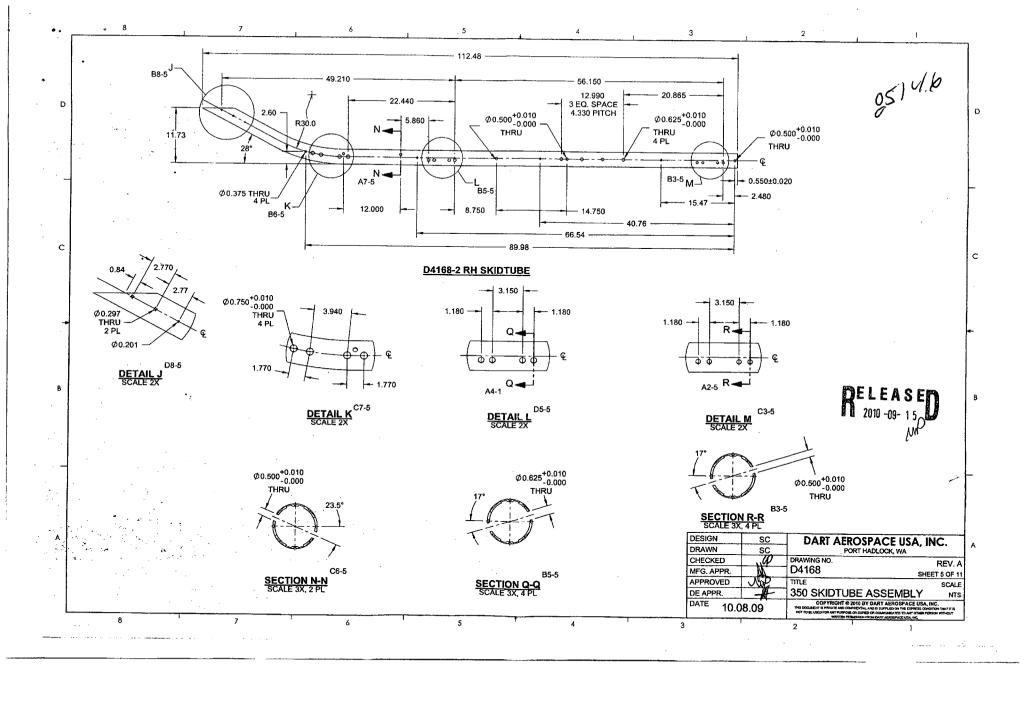
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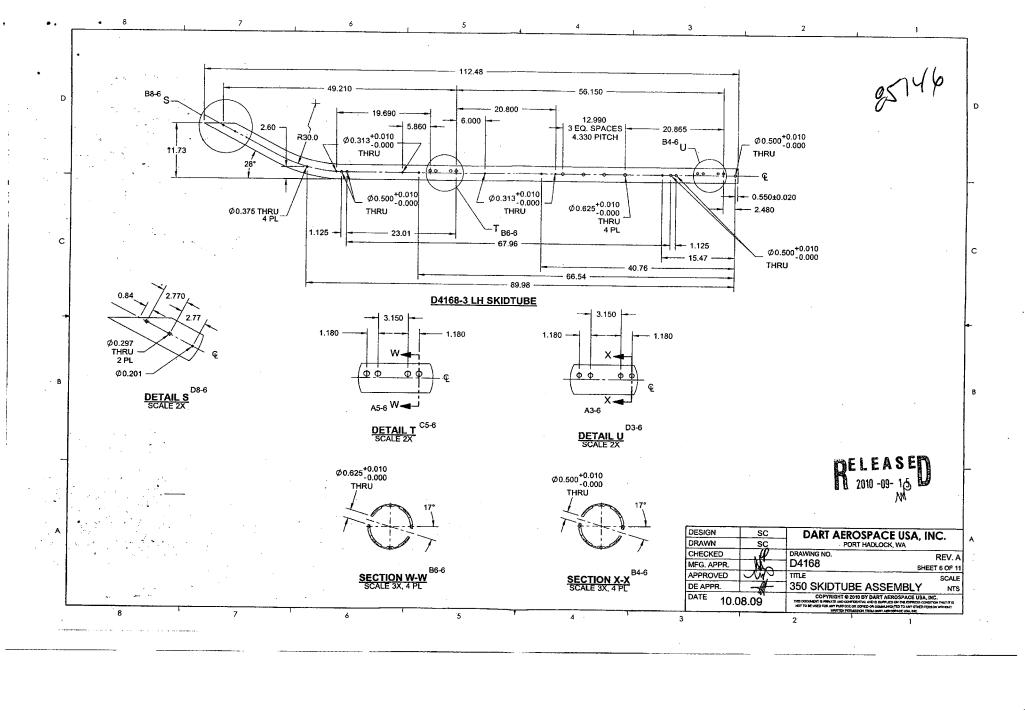
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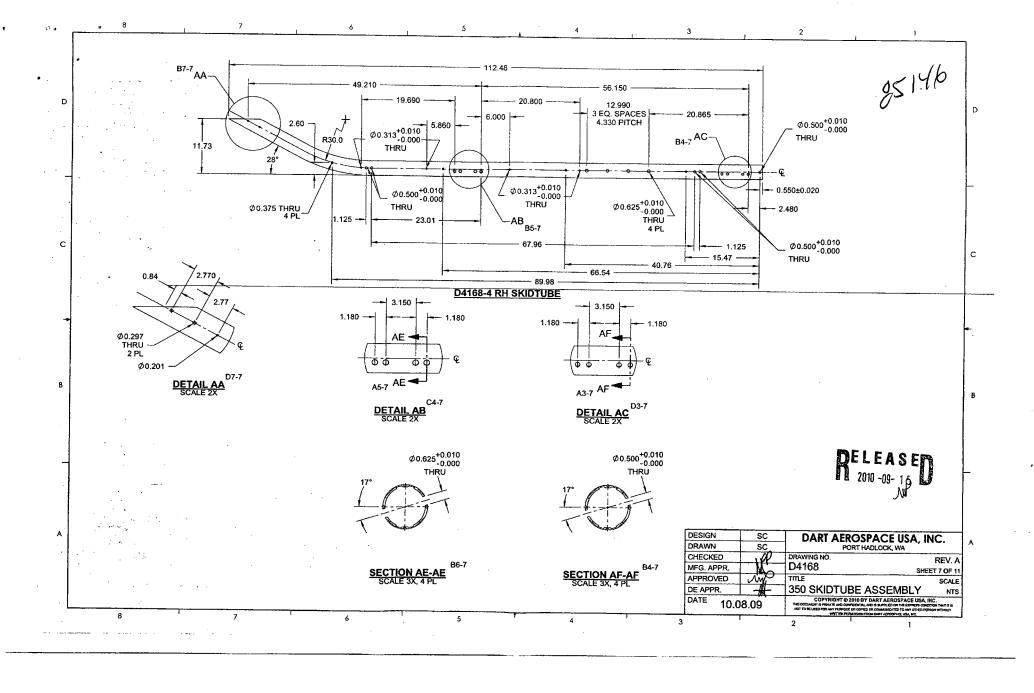
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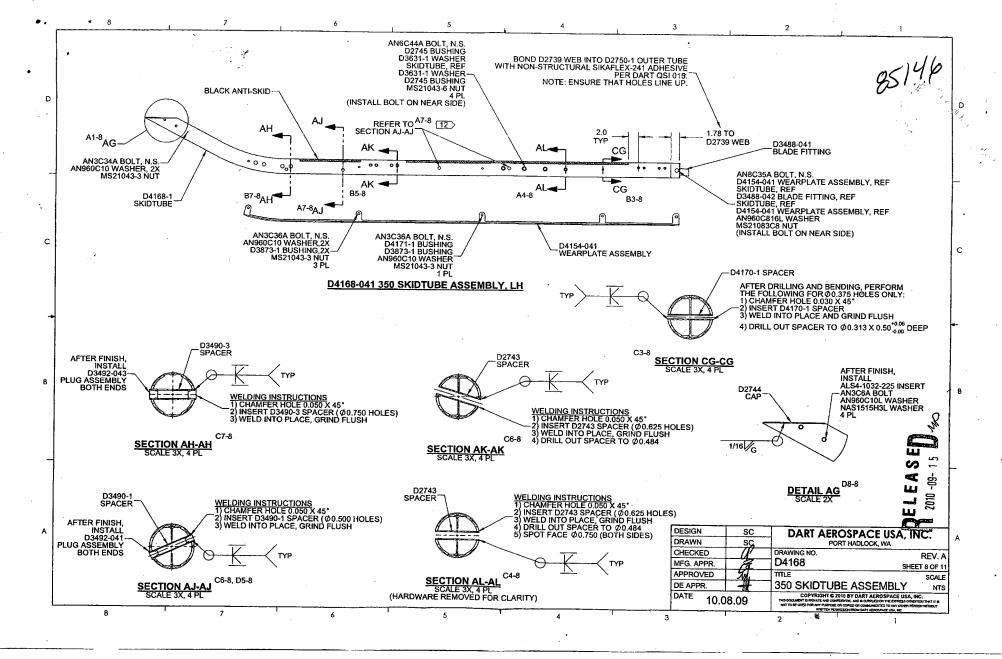
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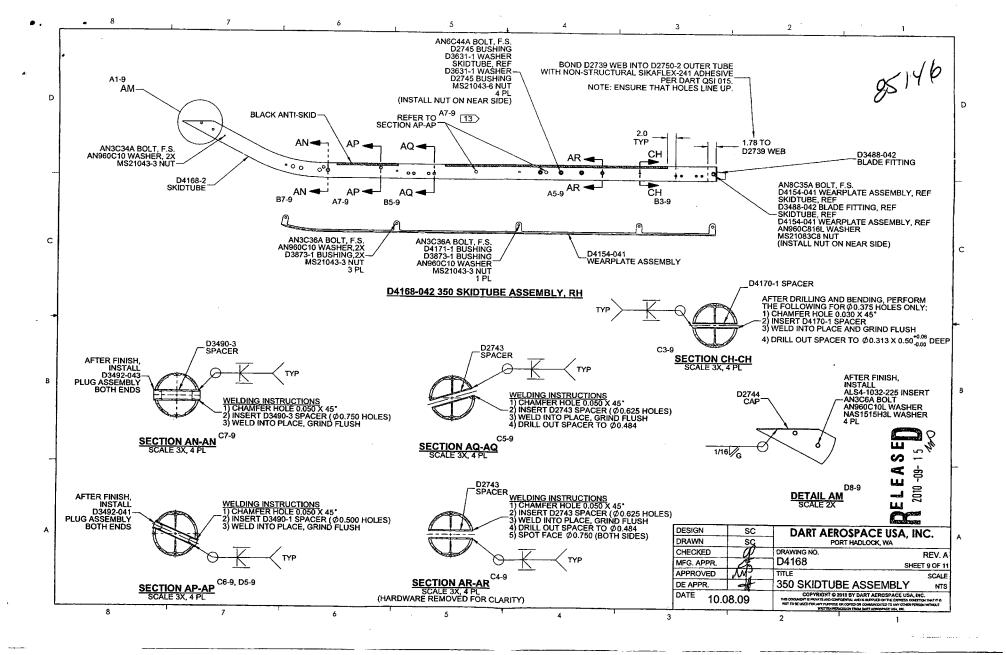
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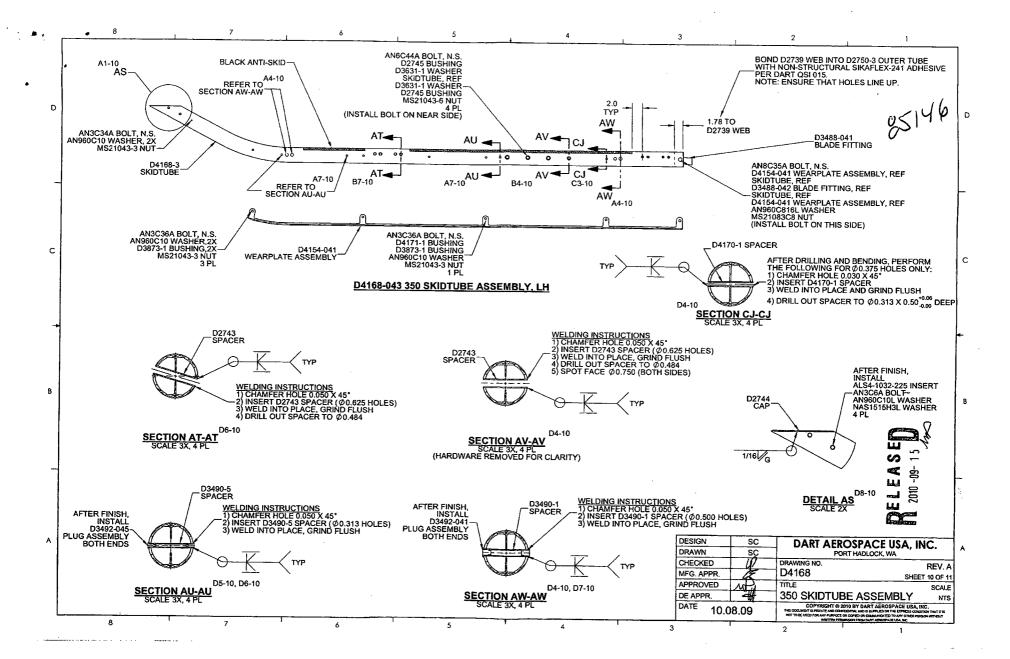
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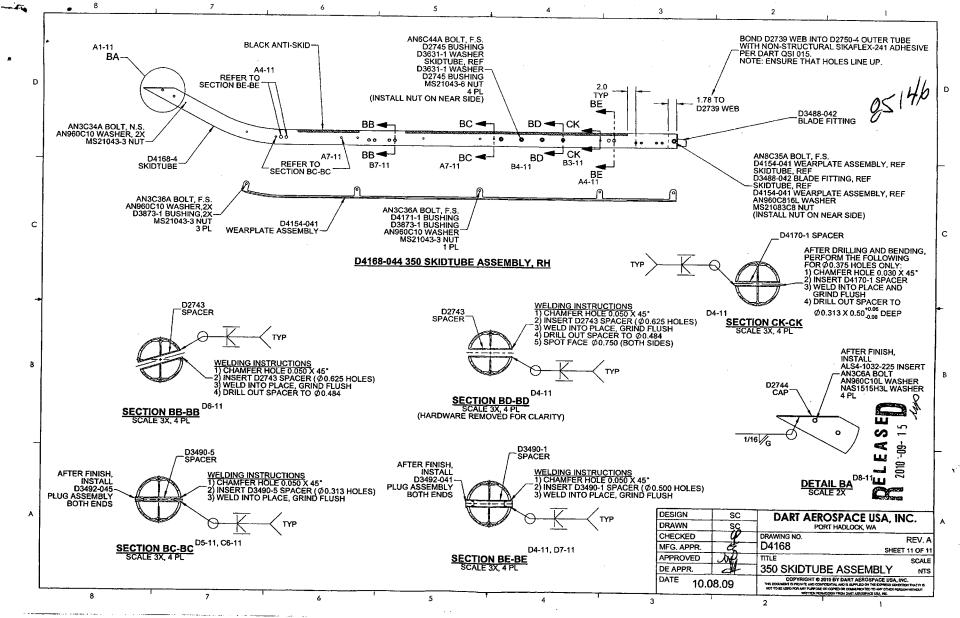
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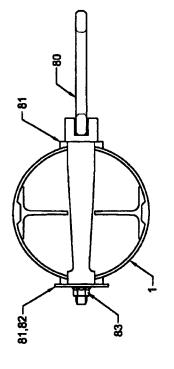
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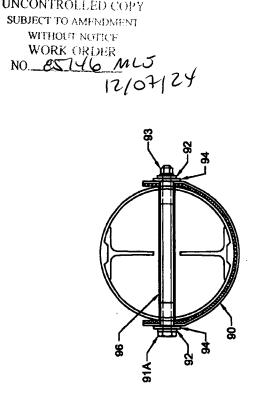


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## SHOWN WITH DRILLED Ø0.625" HOLE & D350-636-109 TOW RING KIT



SHOP COPY

**RETURN TO** 

**ENGINEERING** UNCONTROLLED COPY

SECTION S-S D350-636-015/-016/-017/-018/-215/-216/-217/-218 SKIDTUBES, 3 PL

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NCR:	Yes	/	No

												DQA:	Date:	. <u> </u>
NCR: Y	'es	/ No					WORK ORDER NON-C	O	NFORM	//ANCE / UPI	DATE			
												QA Closed:	Date:	
Vork Orde	er:						DISPOSITION AGAINST		AGAINST DE	PARTMENT/	PROCESS			
Part N	-						Rework Scrap		Skid-tube Crosstube Machining Small Fab		Small Fab	Water Jet Prod. Eng. Coor.		Engineering Quality
NCR No.				Use-as-is Work Order Update			noforming Large Fab	Finishing Composite	Rec/Stor	e/Packaging Supplier	Other			
Root					Des	crip	otion of work order update	Ī	nitial	Act	ion	Sign &		
Cause		Date	Step	Qty		C	or Non-conformance	Ch	ief Eng	Descr	ription	Date	Verification	QC Inspector
oc/Data perator laterial etup ther rocess upplier raining														
							F/	AUL	T CATE	GORY			_	
Landir	$\overline{}$						General	_	1			¬ '	r-	_
		Bending Centre No	ot Concer	ntric to	o/s		Bend BOM/Route		Grain Hardwa			Ovalized Over/Under	<b>├</b>	Pressure/Forced Temperature/Cure
	$\dashv$	Cracks					Broken/Damaged	<u> </u>	'	on Incomplete		Part Incorred	<b>}</b> -	Weld
ļ		Crushed/0	rimped,				Burrs	-	1	ions Incomplete/I	Unclear	Part Lost/Mi	ssing	Wrong Stock Pulled
		Cuffs					Contamination	<u> </u>	Mainte			Part Moved	.,	
	—1	Heat Trea		<b>-</b> .			Countersink	$\vdash$	Mislabe		<u> </u>	Positioned V		7045 c.;
		Inspection		Tube			Cut Too Short	<u> </u>	Misread	1	L	Power Loss/	Surge	Other
ļ	$\overline{}$	Ripples in					Drill Holes	<u></u>	Offset					
1		Torque W			n		Drawing	<u></u>	4	Calibration				
Turning Sequence					Finish	1	Out of 9	Sequence						

Outside Dimensions

H:/F@RMS/Quality Assurance\approved QA/NCRWO Rev G

Wave/Twist in Tube

Folio

25746

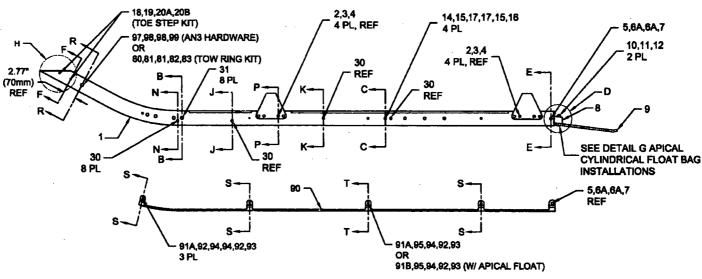
Date: 10.10.25

Revision:

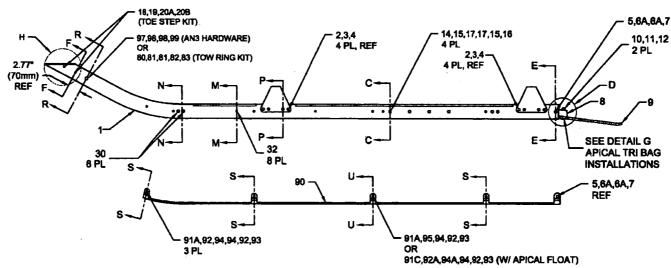
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## **Figure** D350-636-015/-016/-017/-018/-215/-216/-217/-218 SKIDTUBE ASSEMBLY



### D350-636-015/-016/-215/-216 (Aerazur/Apical Cylindrical)



D350-636-017/-018/-217/-218 (Aircruiser/Apical Tri-bag)

											DQA:	Date:		
NCR:											<b>.</b>			
											QA Closed:	Date		
Work Ord	k Order:					DISPOSITION AGAINST				AGAINST DE	DEPARTMENT/PROCESS			
Work Order:				Rework	rk 🗍 📗		Skid-tube Crosstube		]	Water Jet	Engineering			
Part No.				Scrap	Machining Small Fab			Prod. Eng. Coor.		Quality				
				Use-as-is			noforming	Finishing	Rec/Sto	Other				
NCR I	۷o.					Work Order Update	]		Large Fab	Composite		Supplier		
Root		<del> </del>			Descri	ption of work order update		Initial	Act	tion	Sign &	-		
Cause		Date	Step	Qty	(	or Non-conformance	Ch	nief Eng	Desci	ription	Date	Verification	QC Inspector	
Doc/Data														
Equip/Tooling	Ш													
Operator	Ш					-								
Material	Ш													
Setup														
Other														
Process								·						
Supplier														
Training														
Unapproved				<u> </u>								<u> </u>		
,						F	AUI	LT CATE	GORY					
Landi	ng C	Gear				General		_						
		Bending				Bend		Grain			Ovalized		Pressure/Forced **	
		Centre Not Concentric to O/S			o/s	BOM/Route		Hardware			Over/Unde	tolerance	Temperature/Cure	
		Cracks				Broken/Damaged	Г	Inspection Incomplete			Part Incorre	ect	Weld	
		Crushed/Crimped_				Burrs		Instructions Incomplete/Unclear			Part Lost/M	issing	Wrong Stock Pulled	
		Cuffs				Contamination		Maintenance			Part Moved		_	
	П	Heat Treat			Countersink		Mislabeled			Positioned '	Wrong			
	П	Inspectio	n Strip in	Tube		Cut Too Short		Misread			Power Loss,	/Surge	Other	
	Ripples in Bend				Drill Holes		Offset					•		

Out of Calibration

Out of Sequence

Outside Dimensions

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drawing

Finish

Folio

NO. <u>298</u>

## AWS D17.1.2001 QUALIFICATION TEST RECORD

Name: Barcley Elliott	
Job #: 87012 1	
Part #: <u>1350-636 OIH</u>	
Description: Skid tulse	
Welding Process: Tig[ Mig[ ]	
Base materiel: August	
Current: AC[ \( \forall DC[ ]	,

## **TEST REQUIREMENTS AND RESULTS**

Visual:	pass[-]	fail[ ]
Incomplete Penetration:	pass[]	fail[ ]
Incomplete Fusion:	pass[/	fail[ ]
Cracks:	pass[]	fail[ ]
Overlap (cold lap)	pass[ ]	fail[ ]
Undercut:	pass[-	fail[ ]
Pin holes:	pass[]	fail[ ]
Porosity (surface):	pass[ 👍	fail[ ]
Coloration:	pass[]	fail[ ]
Burn through:	pass[+	fail[]

Qualifier Date of Test Coupon 2.07.23

Welder Darelay Short Date of Test Coupon 12-07-23

The above named individual is qualified in accordance with AWS D17.1.2001 to weld